

Sheet 1 of 27

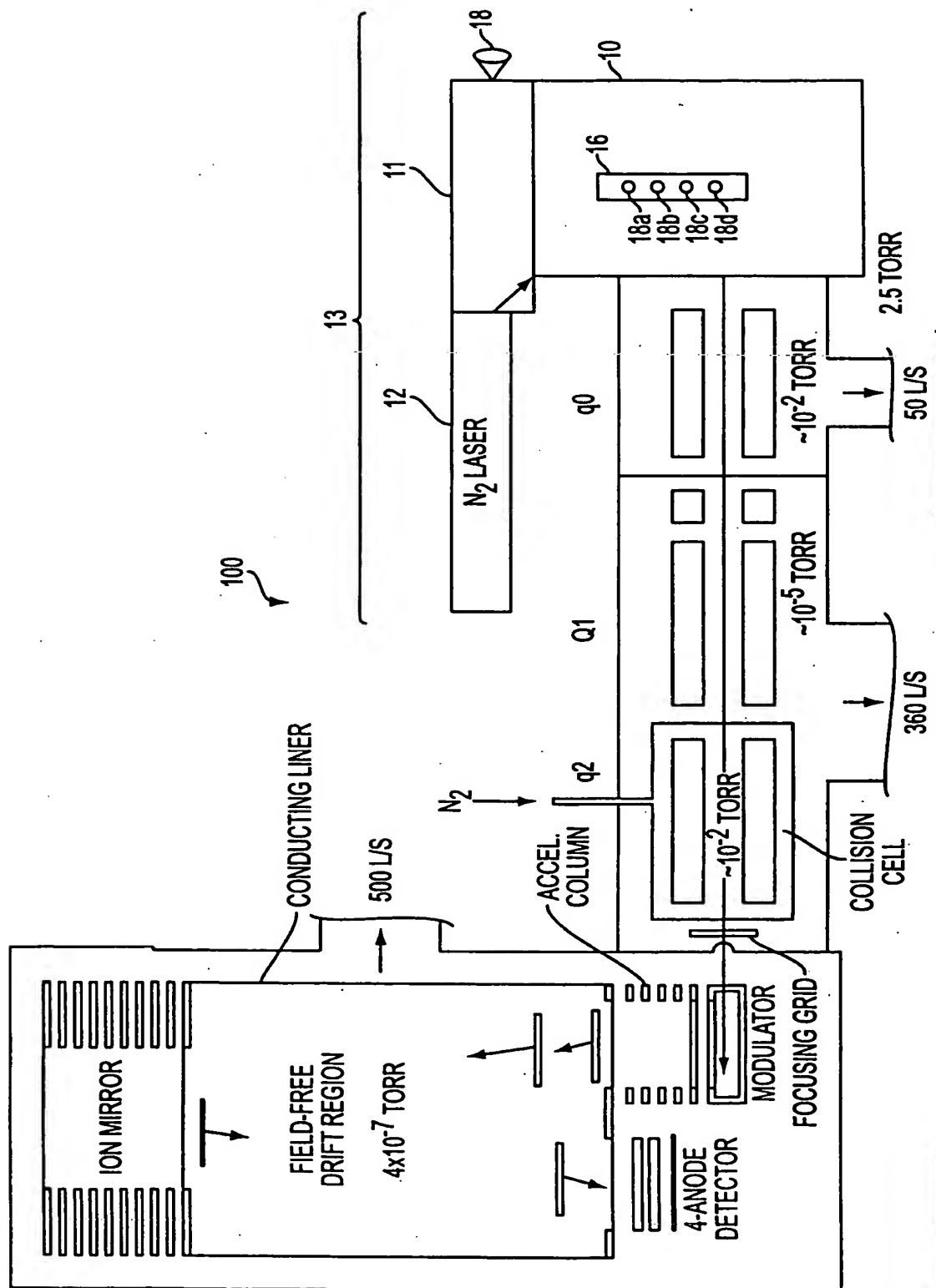


FIG. 1

FIG. 2

Sheet 3 of 27

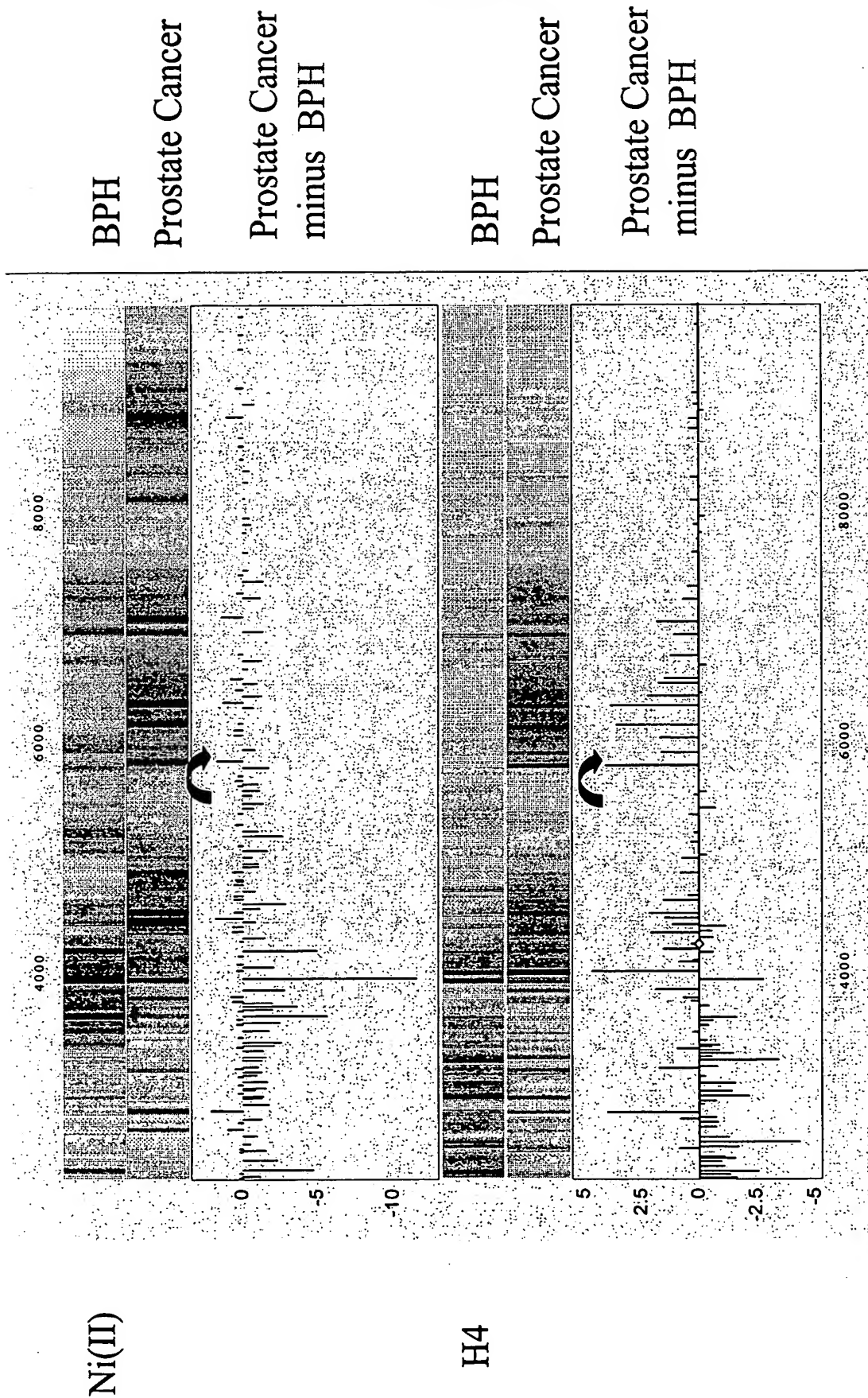


FIG. 3

Sheet 4 of 27

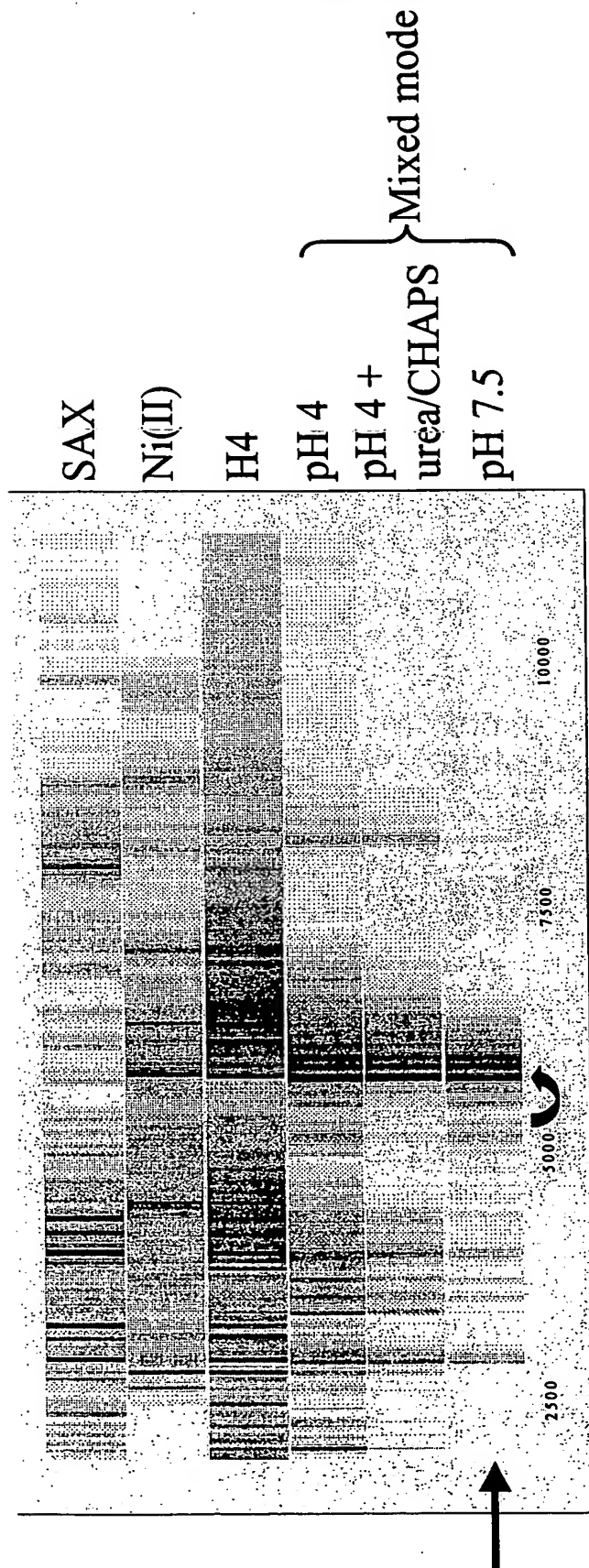


FIG. 4

201310165599001

Sheet 5 of 27

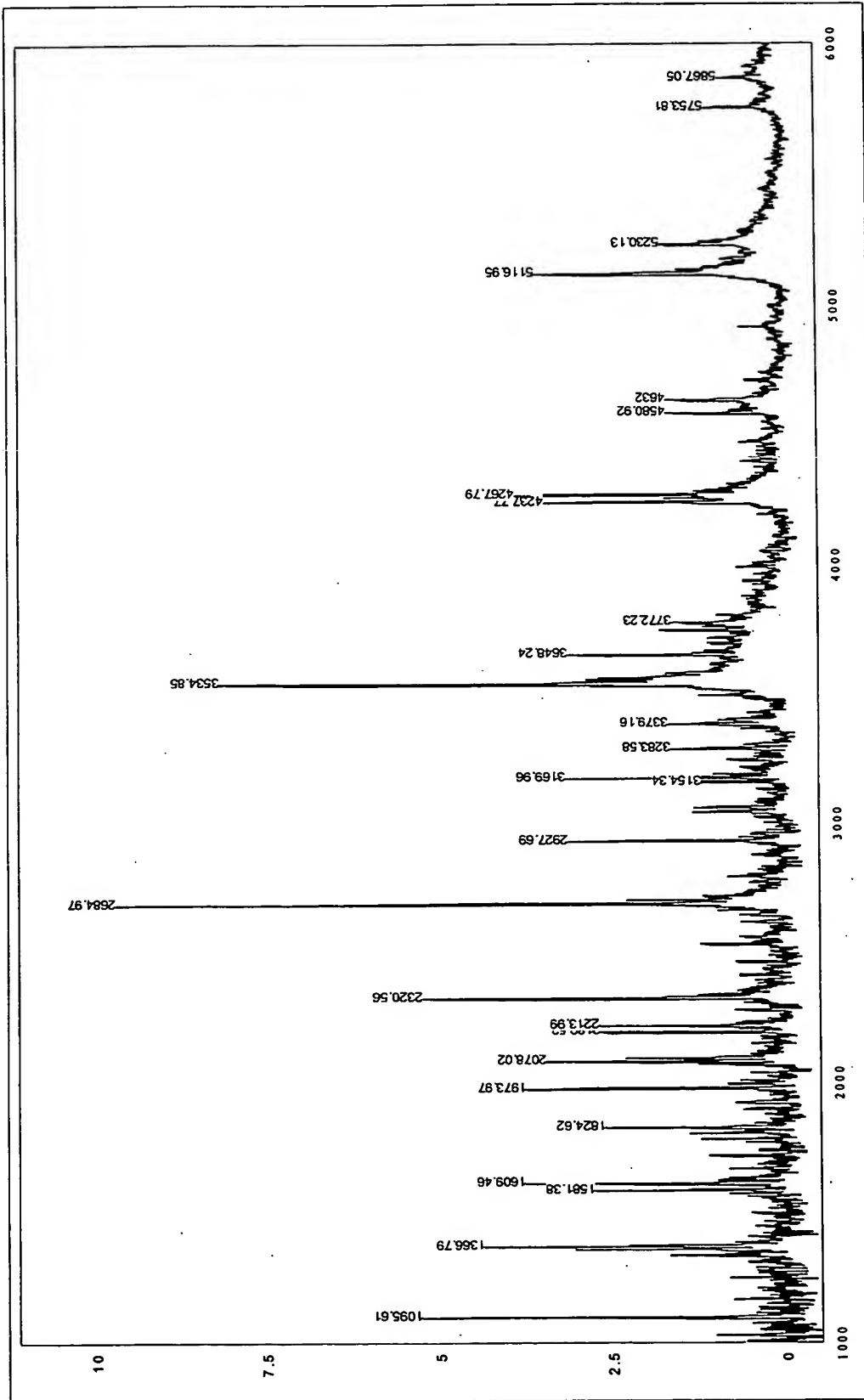


FIG. 5

10066359 "013102

Sheet 6 of 27

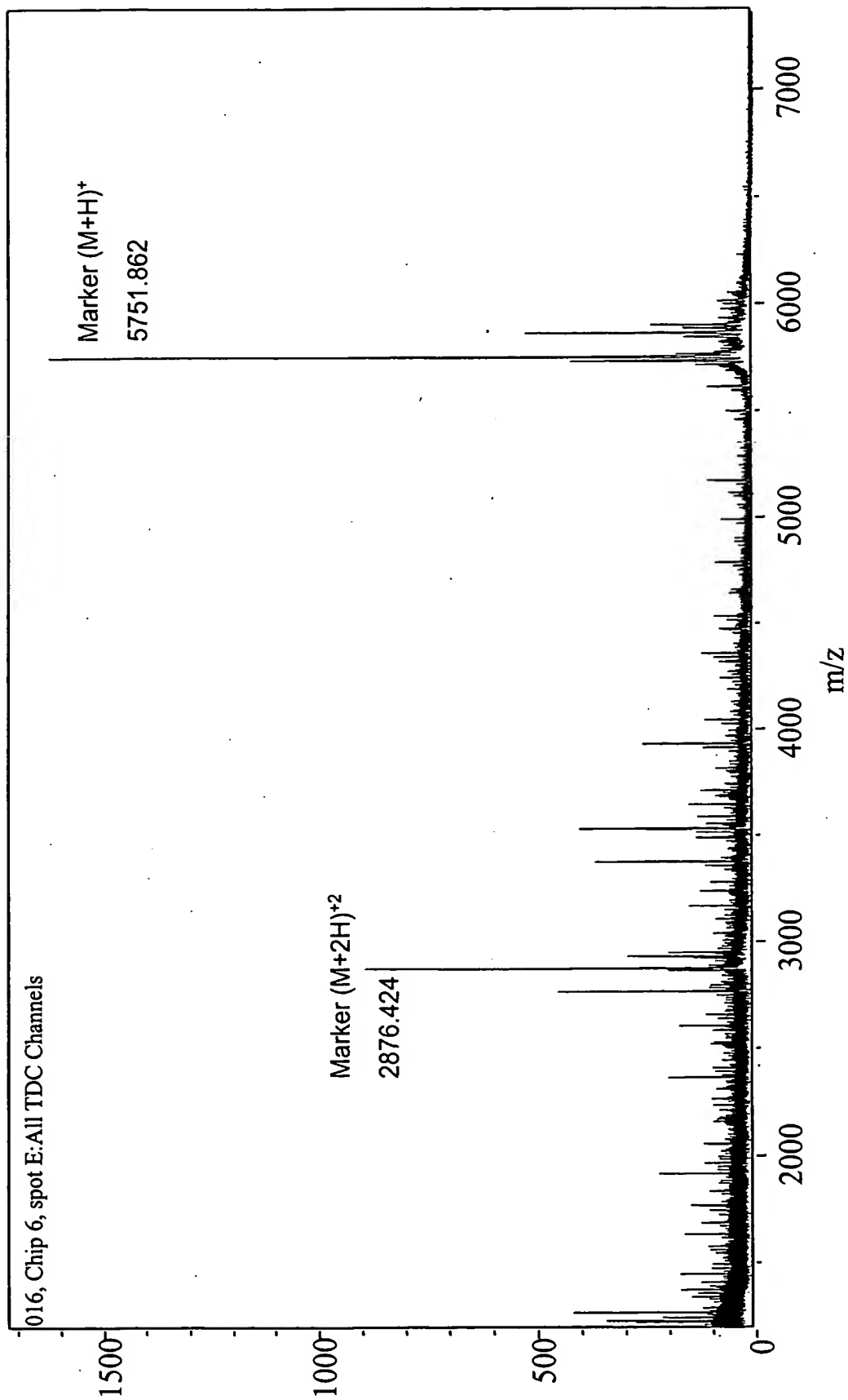


FIG. 6

2012-06-29 10:55:55

Sheet 7 of 27

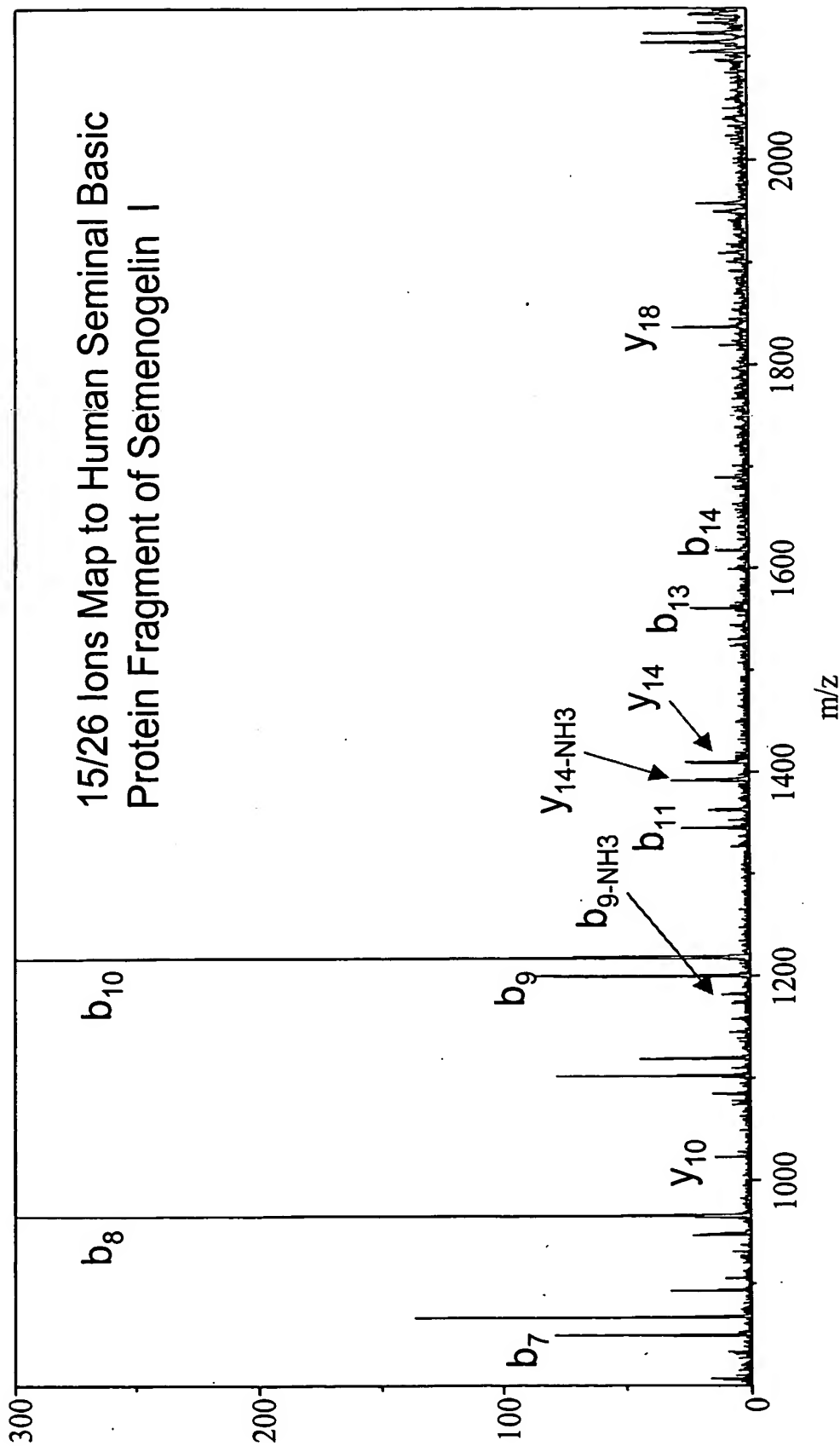


FIG. 7

Sheet 8 of 27

Retentate Mapping of a Peptide Map on a Reverse Phase ProteinChip® Array

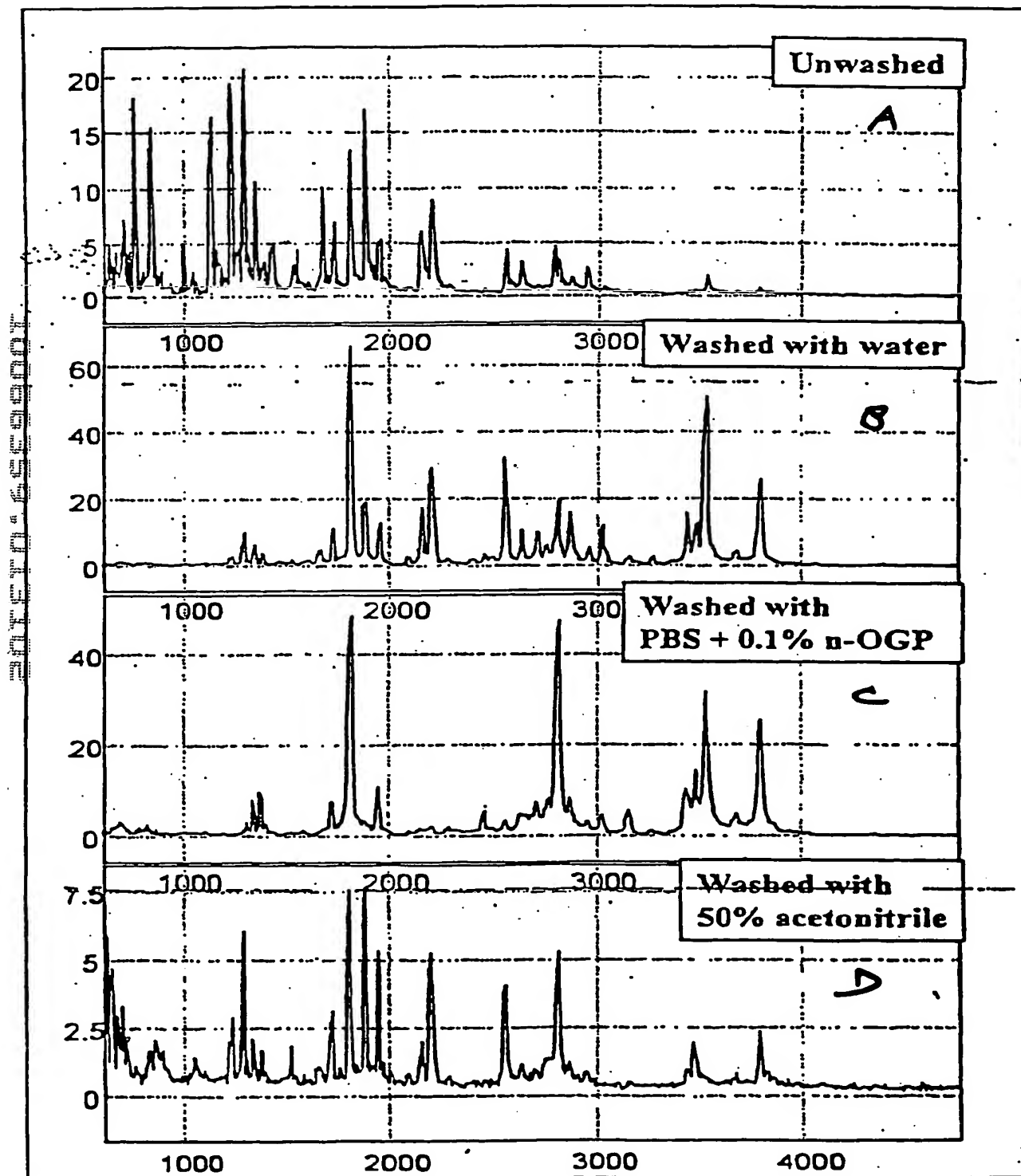


FIG. 8

Sheet 9 of 27

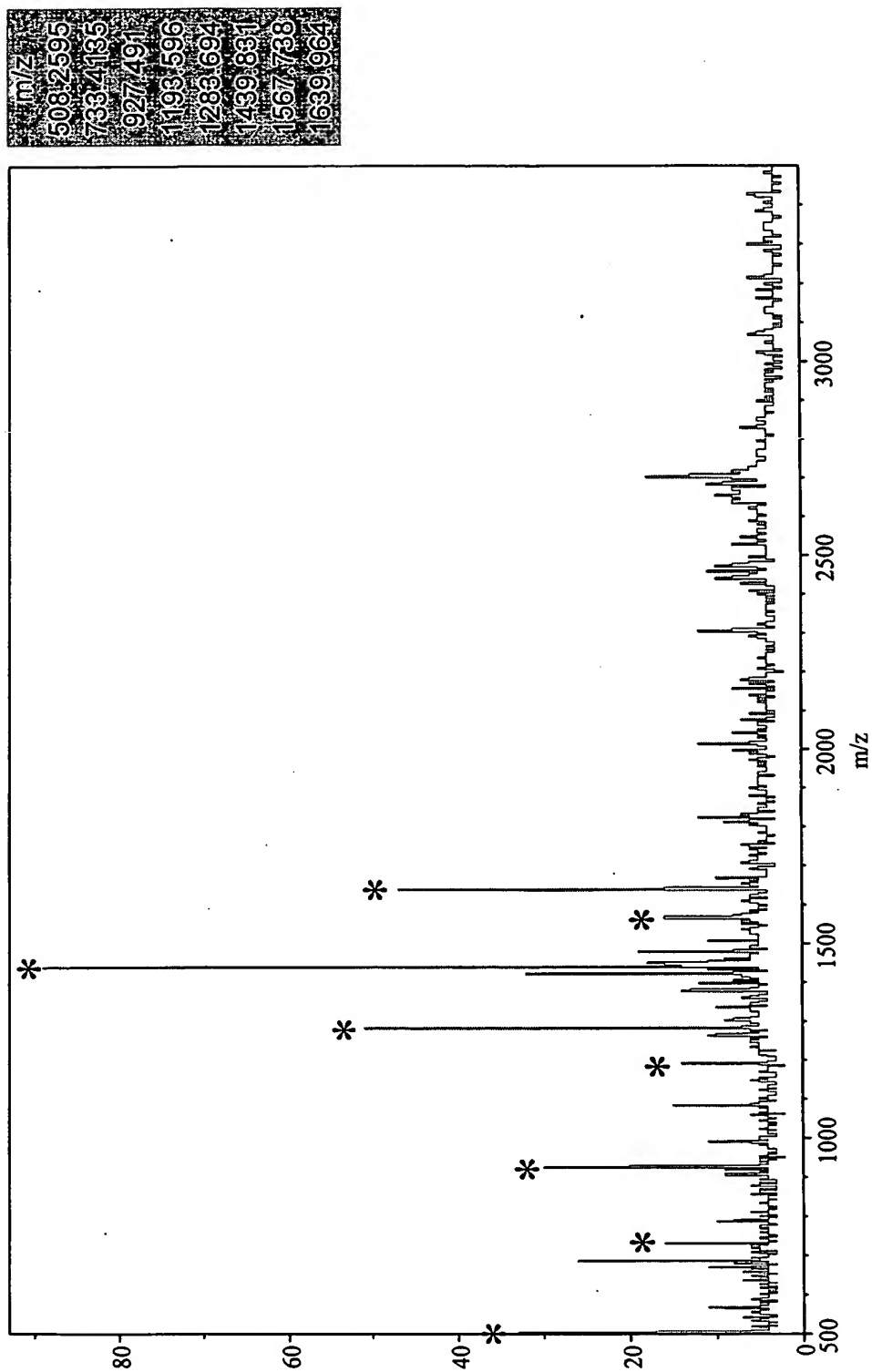


FIG. 9

Sheet 10 of 27

m/z
508.2488
572.3584
689.3708
733.4133
906.4743
927.4924
1001.583
1083.596
1193.603
1283.707
1439.806
1595.88
1639.933
1810.986
1823.904
1897.078

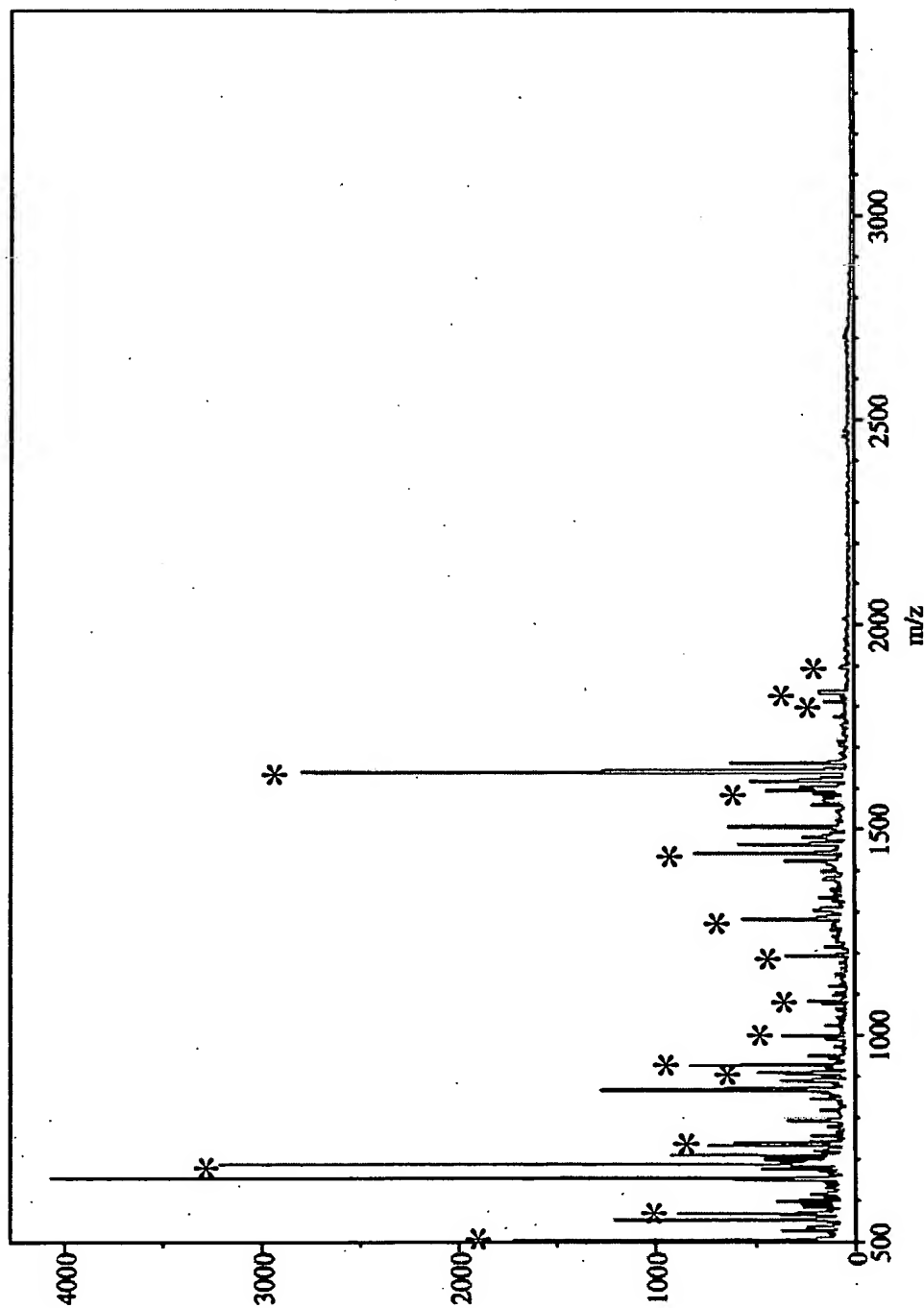


FIG. 10

ragment esidues	Cal. M/Z	pI	pH2O	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
30	204-207	K/F...R/A	508.2518	508.2524	508.2523	508.2507	508.2489	508.2477	508.2471	508.2471	508.2518
27-28	194-197	R/Q...R/C	572.3628	572.3636	572.3628	572.3623	572.3583	572.3585	572.3576	572.3581	572.3628
32	211-216	K/A...R/L	689.3728	689.3766	689.3753	689.3753	689.3708	689.3693	689.3692	689.37	689.3728
26	187-193	K/V...R/Q	733.4208	733.4199	733.421	733.4202	733.4133	733.4159	733.4093	733.4159	733.4208
66	457-463	R/L...K/T	841.4598	847.5069	847.5087			847.5046		847.4989	841.4598
33-34	217-223	R/L...K/A	847.5038	906.4826	906.4814	906.4786	906.4743	906.4694			847.5038
24-25	180-186	K/L...K/V	906.4718	927.4975	927.497	927.4991	927.4924	927.4889	927.4886	927.4905	906.4718
28-29	196-203	R/L...K/F	918.5188	990.5469	990.5759						918.5188
19	137-143	K/Y...R/R	927.4938	1001.592	1001.592	1001.585	1001.583	1001.583	1001.583	1001.582	927.4938
25-26	185-193	R/E...R/Q	990.5578	1083.597	1083.602	1083.601	1083.596	1083.59	1083.605	1083.575	990.5578
31-32	208-216	R/A...R/L	1001.589	1193.609	1138.578	1193.611	1193.595	1193.603	1193.596	1193.593	1001.589
26-27	187-195	K/V...R/L	1017.58	1283.726	1283.714	1283.714	1283.707	1283.701	1283.697	1283.712	1017.58
69	473-481	K/C...R/R	1024.455	1305.707	1305.689	1305.693					1024.455
19-20	137-144	K/Y...R/H	1083.595	1439.812	1439.819	1439.812	1439.806	1439.801	1439.794	1439.81	1083.595
29-30	198-207	R/C...R/A	1138.568	1567.756	1567.756						1138.568
36893	36901	-D...R/F	1193.602	1595.906	1595.882	1595.891	1595.88			1595.895	1193.602
36954	37215	R/F...K/G	1249.621	1639.943	1639.942	1639.944	1639.933	1639.928	1639.923	1639.928	1249.621
50	336-346	R/H...R/L	1283.711	1750.952	1750.942	1750.961					1283.711
55	377-387	K/H...K/Z	1305.716	1811.035	1811.015	1811.035	1810.986	1811.007	1810.992		1305.716
8	65-76	K/S...K/V	1362.672	1823.912	1823.907	1823.97	1823.904			1823.978	1362.672
49-50	335-346	R/R...R/L	1439.812	1962.931	1962.931						1439.812
18-19	133-143	K/F...R/R	1445.758	2031.035	2031.035						1445.758
68-70	470-482	K/V...R/P	1508.767	2157.167	2157.167						1508.767
48	322-334	K/D...R/R	1567.743	2241.13	2241.13						1567.743
50-51	336-349	R/H...K/E	1595.927	2457.183	2457.183						1595.927
74-77	519-533	K/Q...K/P	1777.106	2609.306	2609.306						1777.106
59-60	411-425	R/K...R/S	1639.938	2701.245	2701.245						1639.938
65	443-456	R/M...R/L	1687.813	2820.579	2820.579						1687.813
35-36	224-238	K/A...K/V	1692.942								1692.942
33-35	217-231	R/L...K/L	1750.974								1750.974
66-68	457-472	R/L...K/C	1811.009								1811.009
70-71	482-497	R/R...K/A	1823.9								1823.9
60-61	412-429	K/V...K/V	1897.075								1897.075
14-16	115-131	K/L...K/K	1962.948								1962.948
47-48	316-334	K/N...R/R	2301.082								2301.082
36895	36911	-D...K/G	2424.205								2424.205
37-39	239-260	K/V...K/Y	2441.1								2441.1
47-49	316-335	K/N...R/H	2457.183								2457.183
14-18	115-136	K/L...K/Y	2609.306								2609.306
63-65	434-456	R/C...R/L	2701.245								2701.245
36-39	232-260	K/L...K/Y	3211.554								3211.554
51-54	347-376	R/L...K/H	3420.579								3420.579

Total Peptides
Sequence Coverage (%)

34
45

FIG. 11

Fragment	Residues	Cal. M/Z	pI	pH2	pH3	pH4	pH5	pH6	pH7	pH8	pH9	All Conditions
30	204-207	KF...RA	508.2518	6	508.2502	508.2478	508.2457	508.2456	508.2476	508.2478	508.246	508.2455
27-28	194-197	R/Q...RC	572.3628	12	572.3539	572.352	572.352	572.3545	572.3527	572.3527	572.3527	572.36283
32	211-216	K/A...RL	689.3728	9.8	689.3697	689.3668	689.3668	689.3668	689.3702	689.3702	689.3629	689.37283
26	187-193	KV...R/Q	733.4208	9.7	733.4115	733.4089	733.4089	733.4089	733.4089	733.4089	733.4089	733.42083
66	457-463	RL...K/T	841.4598	6.7	841.4598	841.4598	841.4598	841.4598	841.4598	841.4598	841.4598	
33-34	217-223	RL...K/A	847.5038	10	847.5038	847.5038	847.5038	847.5038	847.5038	847.5038	847.5038	
24-25	180-186	KL...K/V	908.4718	6.1	908.4718	908.4718	908.4718	908.4718	908.4718	908.4718	908.4718	908.47183
28-29	196-203	RL...K/F	918.5188	9.5	918.5188	918.5188	918.5188	918.5188	918.5188	918.5188	918.5188	
19	137-143	KY...R/R	927.4938	6	927.4938	927.4938	927.4938	927.4938	927.4938	927.4938	927.4938	927.49383
25-26	185-193	R/E...R/Q	990.5578	8.8	990.5578	990.5578	990.5578	990.5578	990.5578	990.5578	990.5578	1001.58883
31-32	208-216	R/A...R/L	1001.589	11	1001.589	1001.589	1001.589	1001.589	1001.589	1001.589	1001.589	1024.45483
26-27	187-195	KV...R/L	1017.58	12	1017.58	1017.58	1017.58	1017.58	1017.58	1017.58	1017.58	1083.59483
69	473-481	K/C...R/R	1024.455	6	1024.455	1024.455	1024.455	1024.455	1024.455	1024.455	1024.455	
19-20	137-144	K/Y...R/H	1083.595	8.6	1083.595	1083.595	1083.595	1083.595	1083.595	1083.595	1083.595	1193.60183
29-30	198-207	R/C...R/A	1138.568	8.2	1138.568	1138.568	1138.568	1138.568	1138.568	1138.568	1138.568	1249.62083
36893	36901	-D...R/F	1193.602	6.9	1193.602	1193.602	1193.602	1193.602	1193.602	1193.602	1193.602	1283.71083
36954	37215	R/F...K/G	1249.621	5.4	1249.621	1249.621	1249.621	1249.621	1249.621	1249.621	1249.621	1305.71583
50	336-346	R/H...R/L	1283.711	6.7	1283.711	1283.711	1283.711	1283.711	1283.711	1283.711	1283.711	1439.81183
55	377-387	K/H...K/Z	1305.716	5.3	1305.716	1305.716	1305.716	1305.716	1305.716	1305.716	1305.716	
8	65-76	K/S...K/V	1362.672	5.3	1362.672	1362.672	1362.672	1362.672	1362.672	1362.672	1362.672	
49-50	335-346	R/R...R/L	1439.812	8.7	1439.812	1439.812	1439.812	1439.812	1439.812	1439.812	1439.812	1567.74283
18-19	133-143	K/F...R/R	1445.758	8.5	1445.758	1445.758	1445.758	1445.758	1445.758	1445.758	1445.758	1595.92883
68-70	470-482	K/V...R/P	1508.767	10.8	1508.767	1508.767	1508.767	1508.767	1508.767	1508.767	1508.767	1777.10583
48	322-334	K/D...R/R	1567.743	4.4	1567.743	1567.743	1567.743	1567.743	1567.743	1567.743	1567.743	1639.93783
50-51	336-349	R/H...K/E	1595.927	8.6	1595.927	1595.927	1595.927	1595.927	1595.927	1595.927	1595.927	1692.94183
74-77	519-533	K/Q...K/P	1777.106	10	1777.106	1777.106	1777.106	1777.106	1777.106	1777.106	1777.106	1811.00883
59-60	411-425	R/K...R/S	1639.938	8.7	1639.938	1639.938	1639.938	1639.938	1639.938	1639.938	1639.938	1823.89983
65	443-456	R/M...R/L	1667.813	4.4	1667.813	1667.813	1667.813	1667.813	1667.813	1667.813	1667.813	1962.94783
35-36	224-238	K/A...K/V	1692.942	4.7	1692.942	1692.942	1692.942	1692.942	1692.942	1692.942	1692.942	2301.08183
33-35	217-231	R/L...K/L	1750.974	8.5	1750.974	1750.974	1750.974	1750.974	1750.974	1750.974	1750.974	2424.20483
66-68	457-472	R/L...K/C	1811.009	8.2	1811.009	1811.009	1811.009	1811.009	1811.009	1811.009	1811.009	2441.09983
70-71	482-497	R/R...K/A	1823.9	6	1823.9	1823.9	1823.9	1823.9	1823.9	1823.9	1823.9	3211.55383
60-61	412-429	KV...K/V	1897.075	8.7	1897.075	1897.075	1897.075	1897.075	1897.075	1897.075	1897.075	
14-16	115-131	K/L...K/K	1962.948	4.4	1962.948	1962.948	1962.948	1962.948	1962.948	1962.948	1962.948	26
47-48	316-334	K/N...R/R	2301.082	4.7	2301.082	2301.082	2301.082	2301.082	2301.082	2301.082	2301.082	37
36895	36911	-D...K/G	2424.205	6.3	2424.205	2424.205	2424.205	2424.205	2424.205	2424.205	2424.205	
37-39	239-260	KV...K/Y	2441.1	4.9	2441.1	2441.1	2441.1	2441.1	2441.1	2441.1	2441.1	
47-49	316-335	K/N...R/H	2457.183	6.1	2457.183	2457.183	2457.183	2457.183	2457.183	2457.183	2457.183	
14-18	115-136	K/L...K/Y	2609.306	6.2	2609.306	2609.306	2609.306	2609.306	2609.306	2609.306	2609.306	
63-65	434-456	R/C...R/L	2701.245	4.9	2701.245	2701.245	2701.245	2701.245	2701.245	2701.245	2701.245	
36-39	232-260	K/L...K/Y	3211.554	4.9	3211.554	3211.554	3211.554	3211.554	3211.554	3211.554	3211.554	
51-54	347-376	R/L...K/H	3420.579	4.7	3420.579	3420.579	3420.579	3420.579	3420.579	3420.579	3420.579	

Total Peptides
Sequence Coverage (%)

FIG. 12

20151015 15:55:59

Sheet 13 of 27

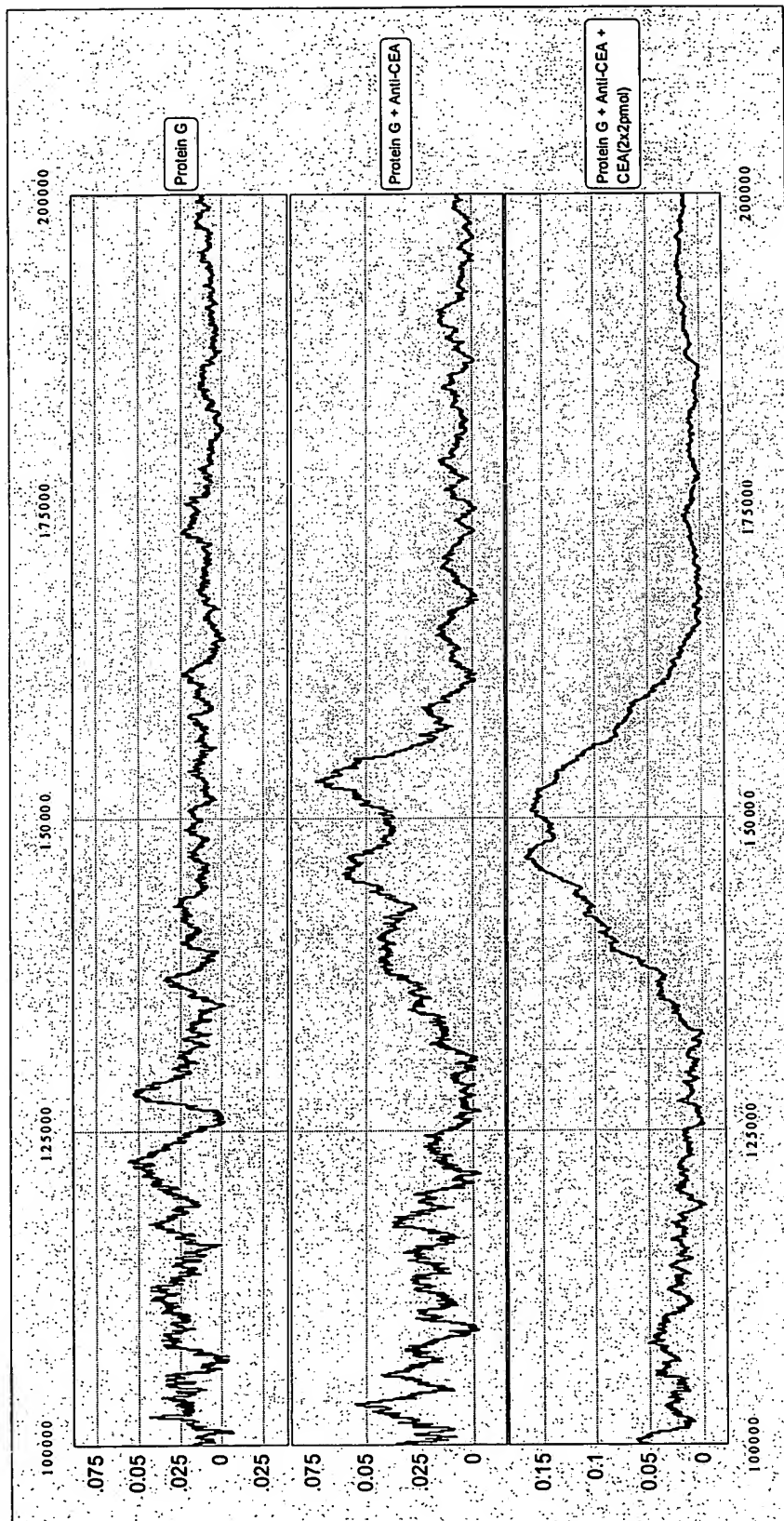


FIG. 13

201610-65E99001

Sheet 14 of 27

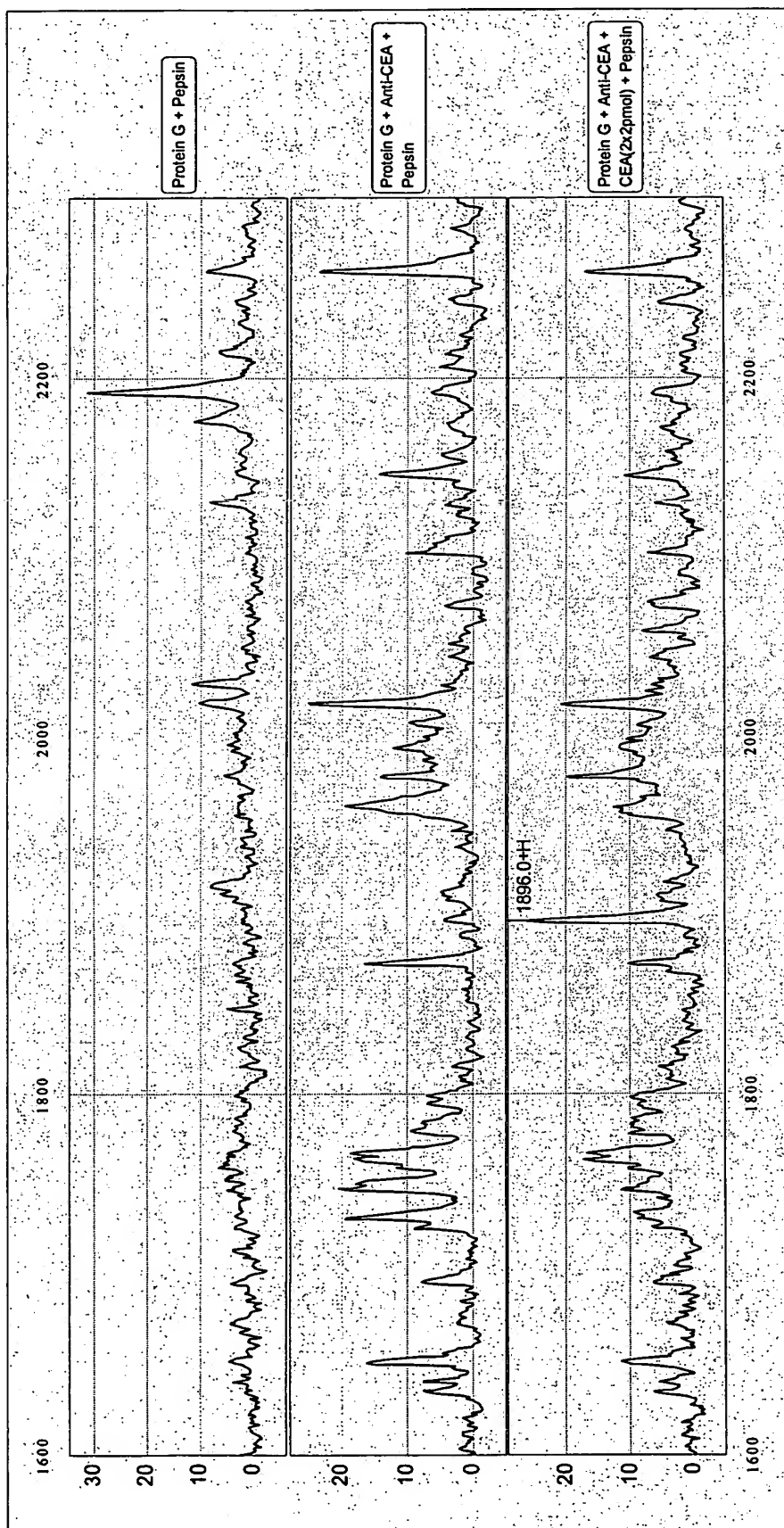


FIG. 14

Sheet 15 of 27

YVIGTQQATAYSGREPGP

Parent MH⁺
1894.9299

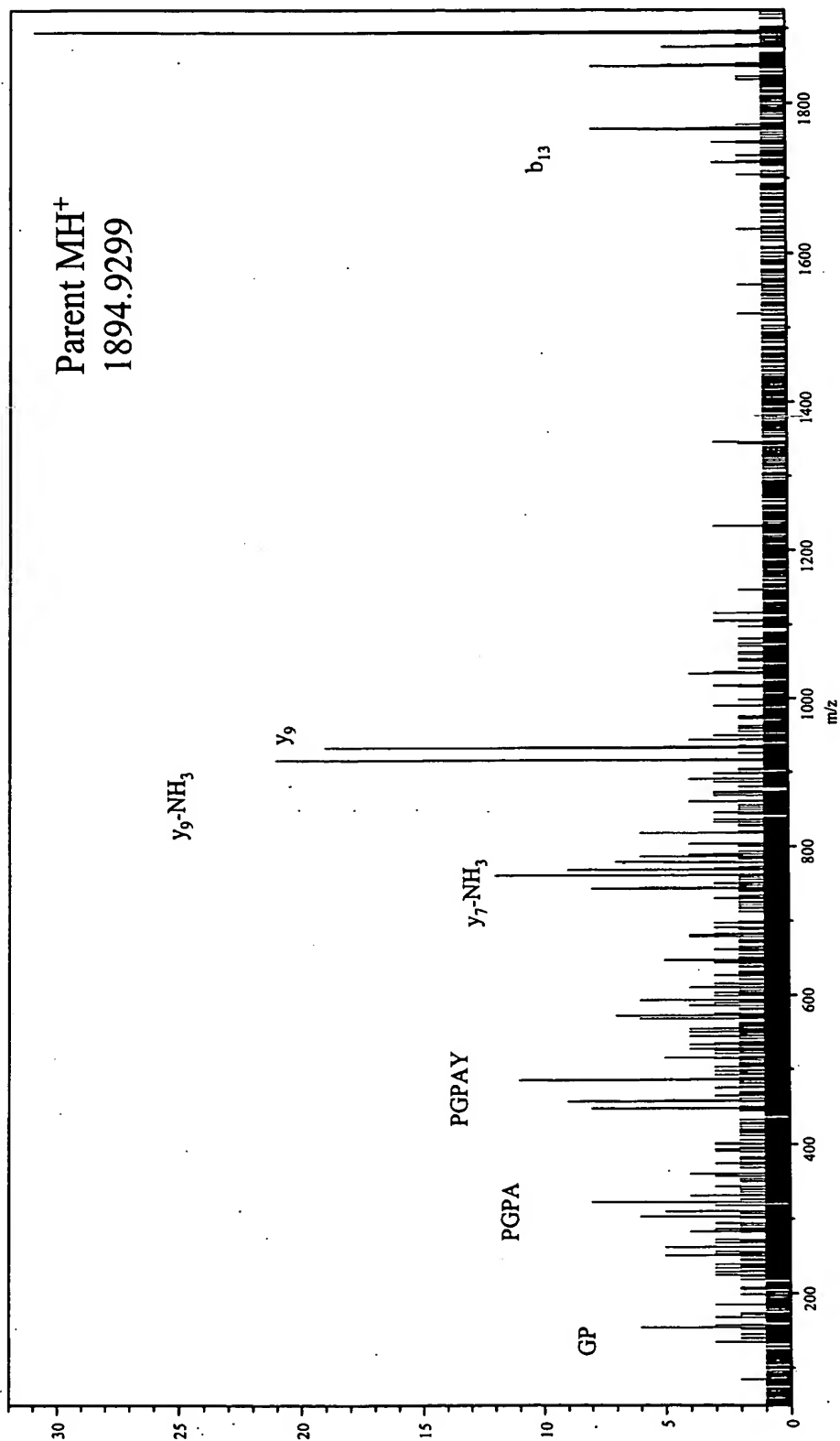


FIG. 15

2015-09-09 09:00:00

Sheet 16 of 27

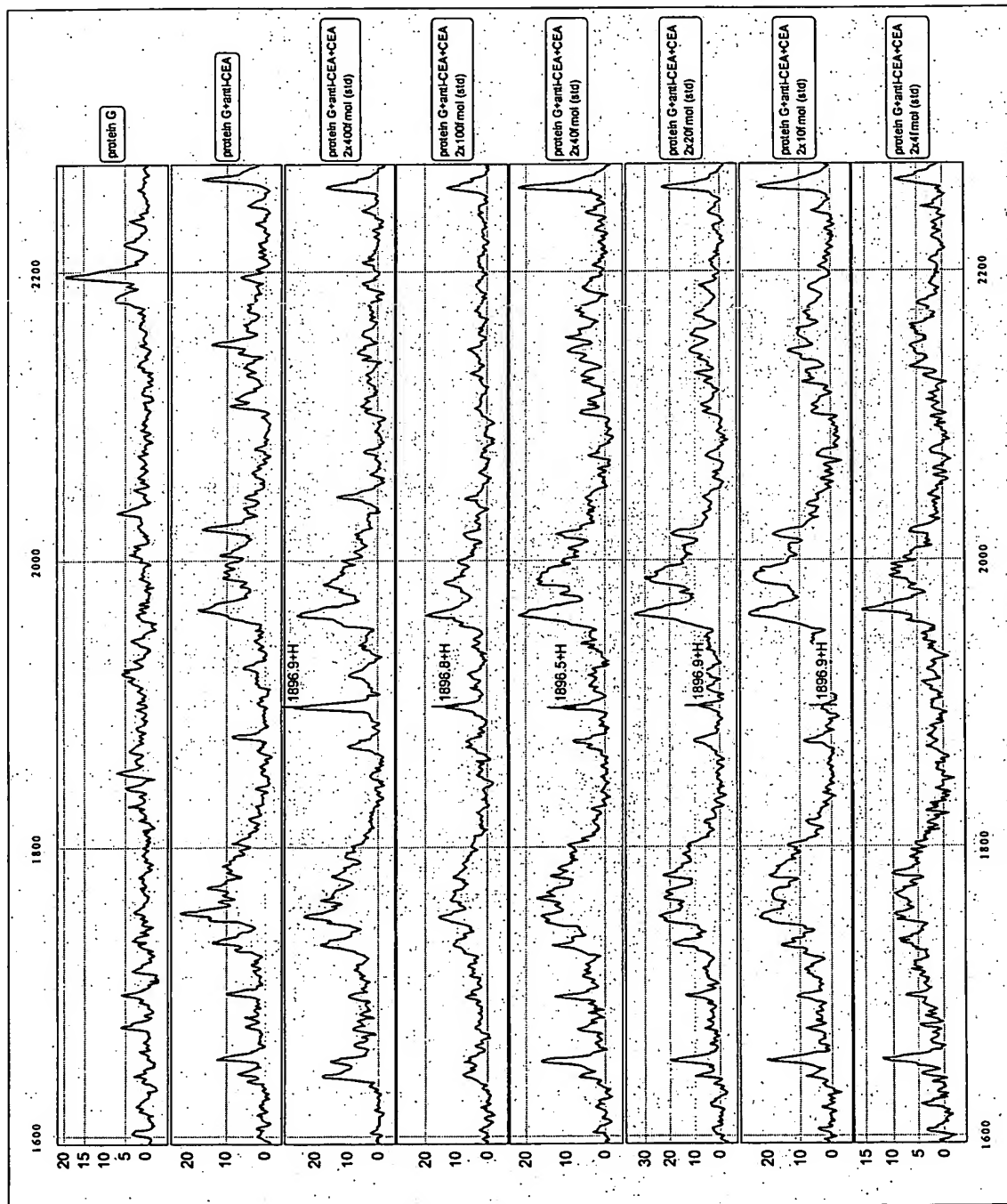


FIG. 16

Quantitative Antigen Capture

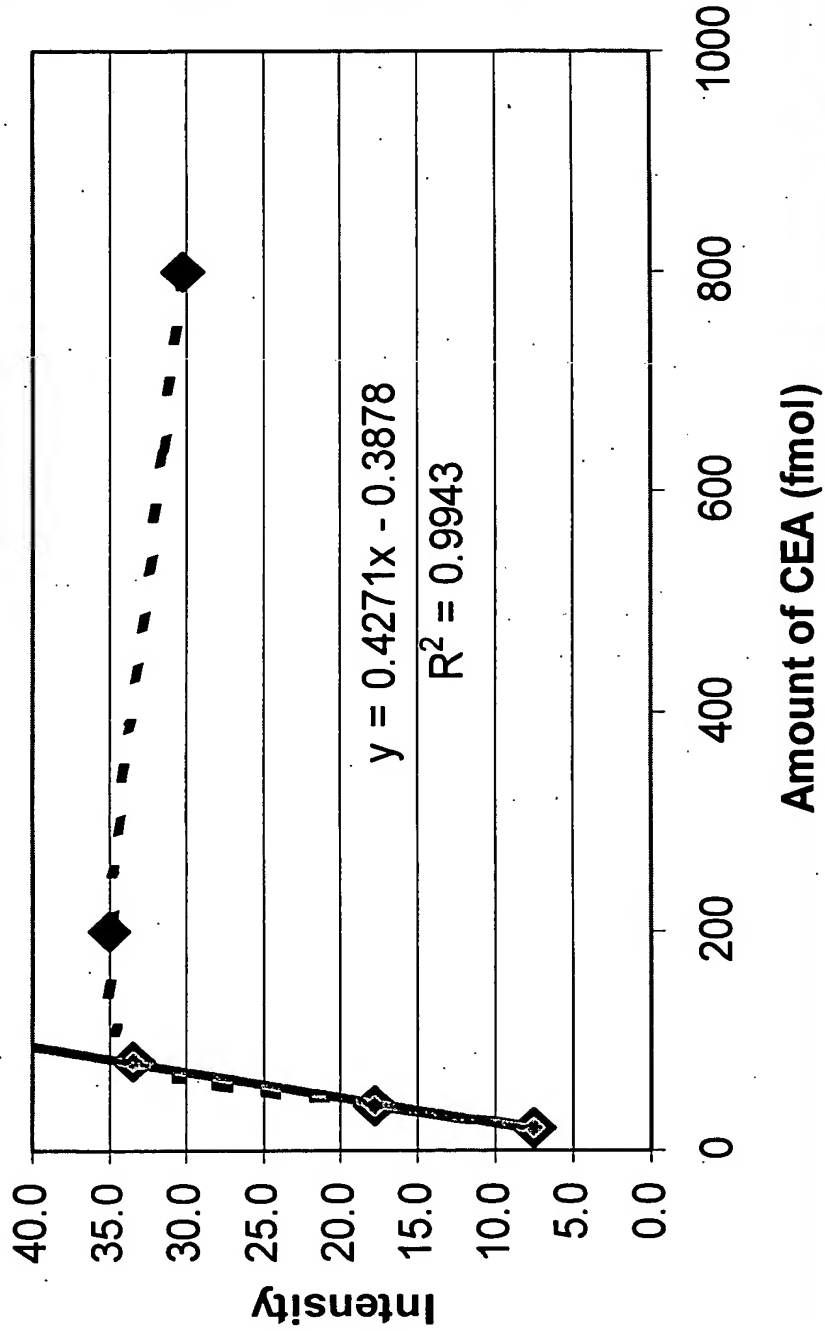


FIG. 17

Sheet 18 of 27

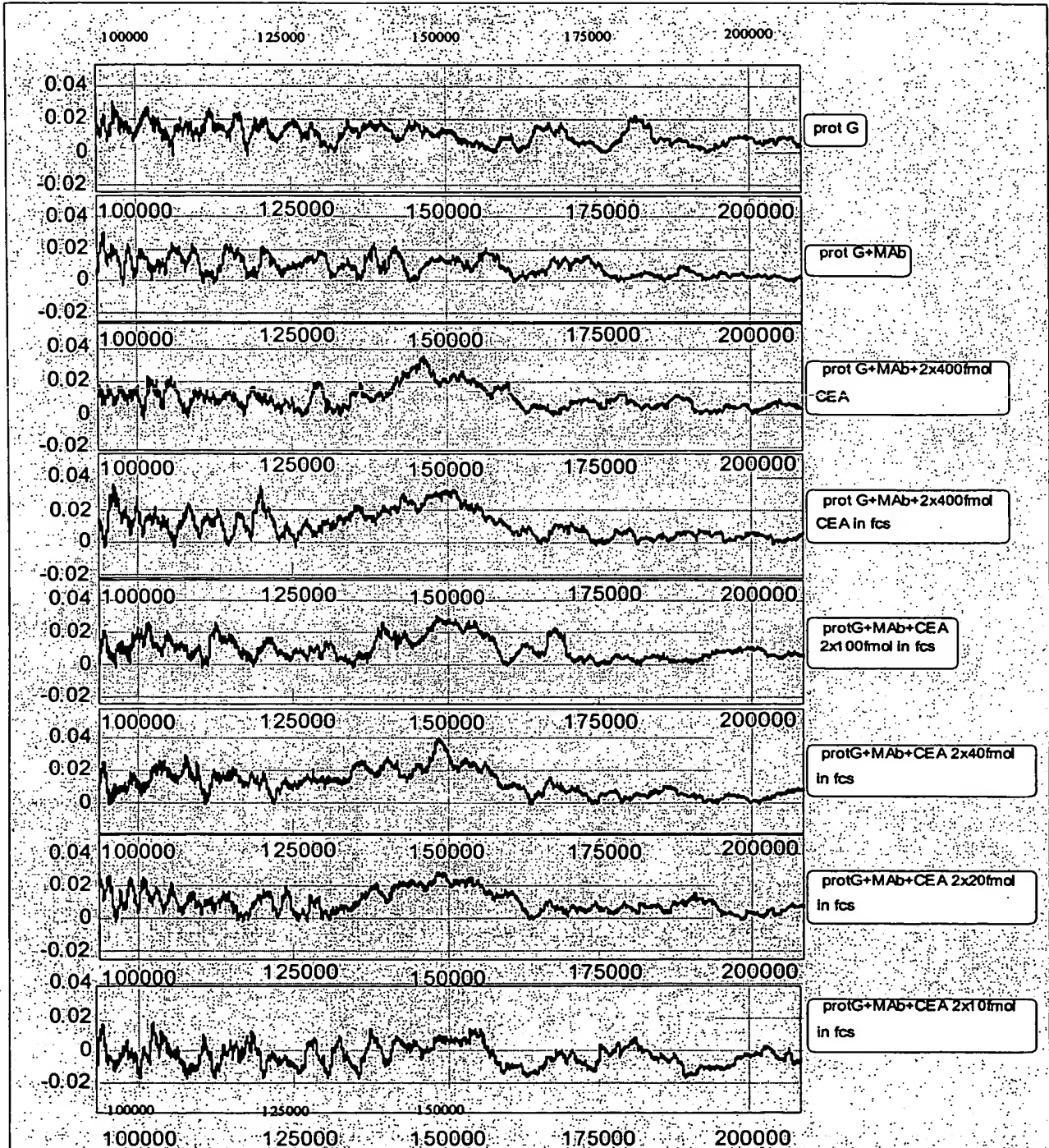


FIG. 18

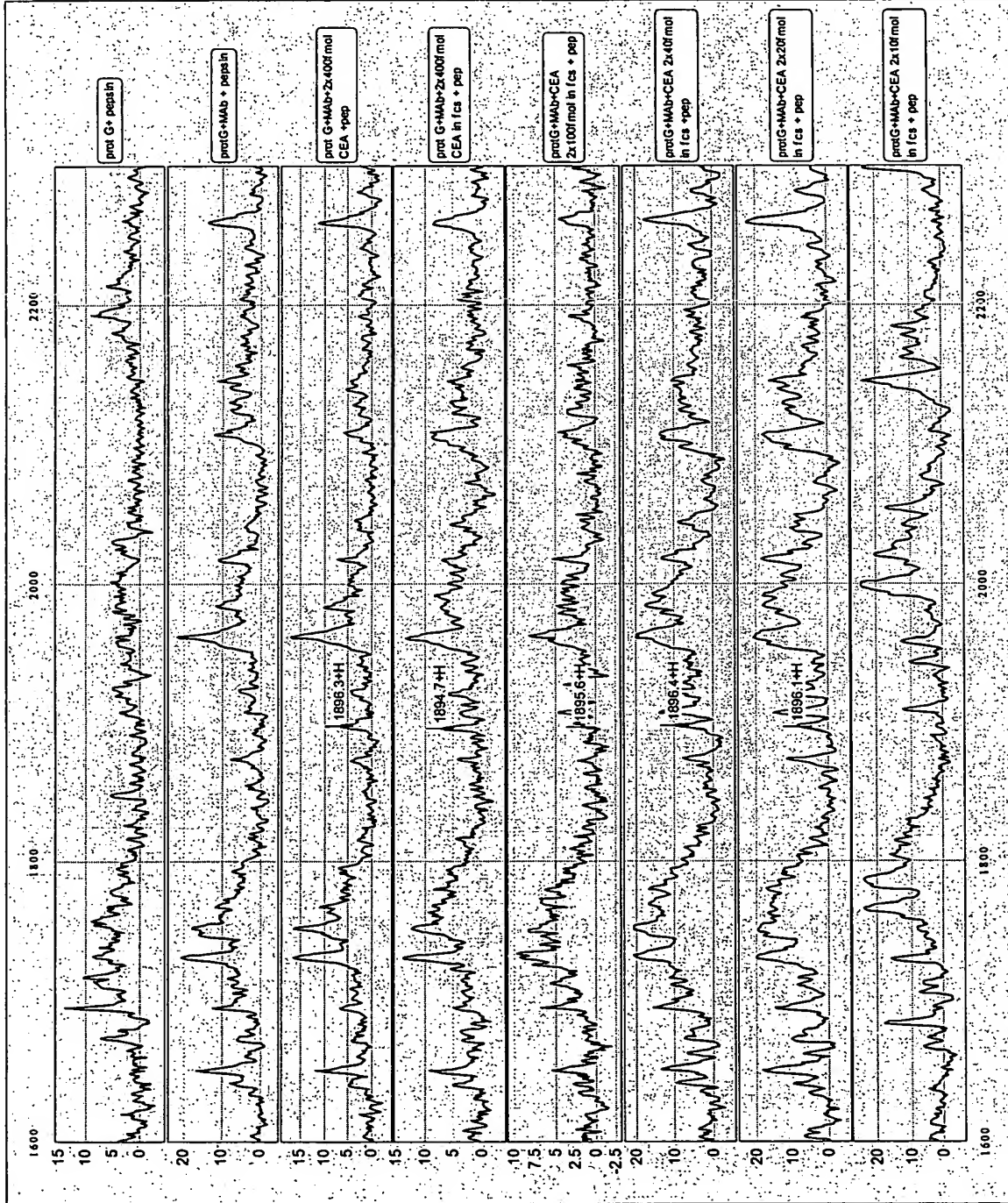


FIG. 19

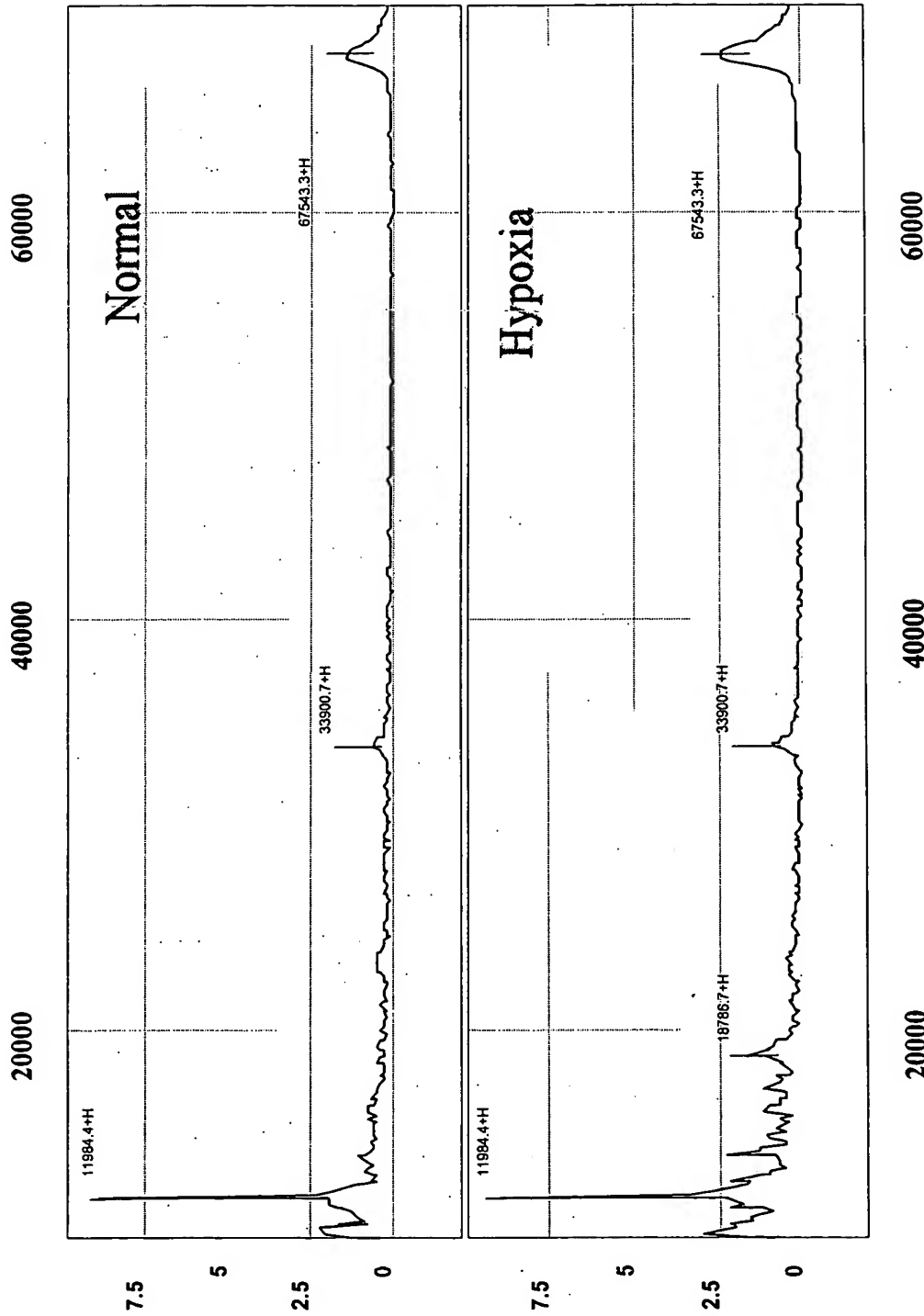
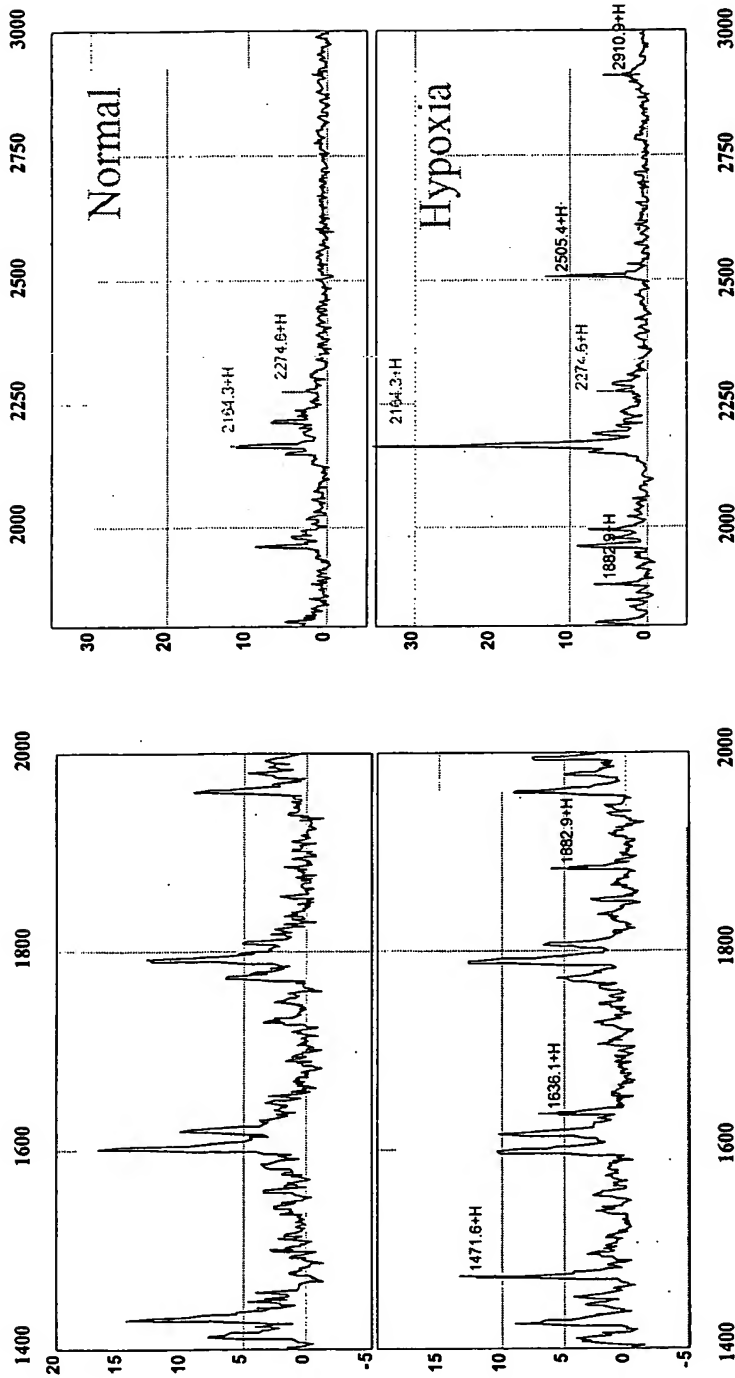


FIG. 20

Sheet 21 of 27



Fragments generated from trypsin autolysis: 2164.3, 2274.6

FIG. 21

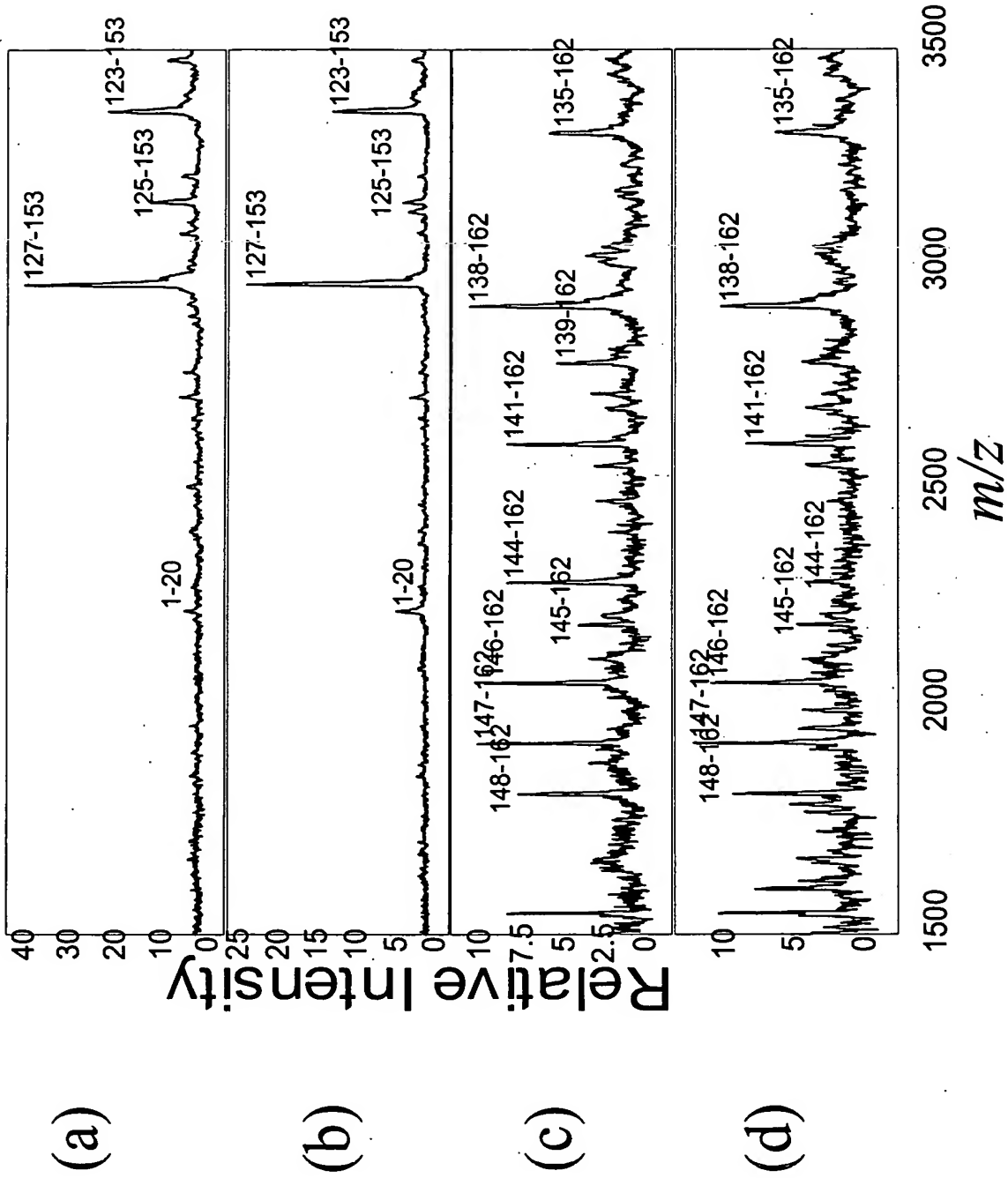
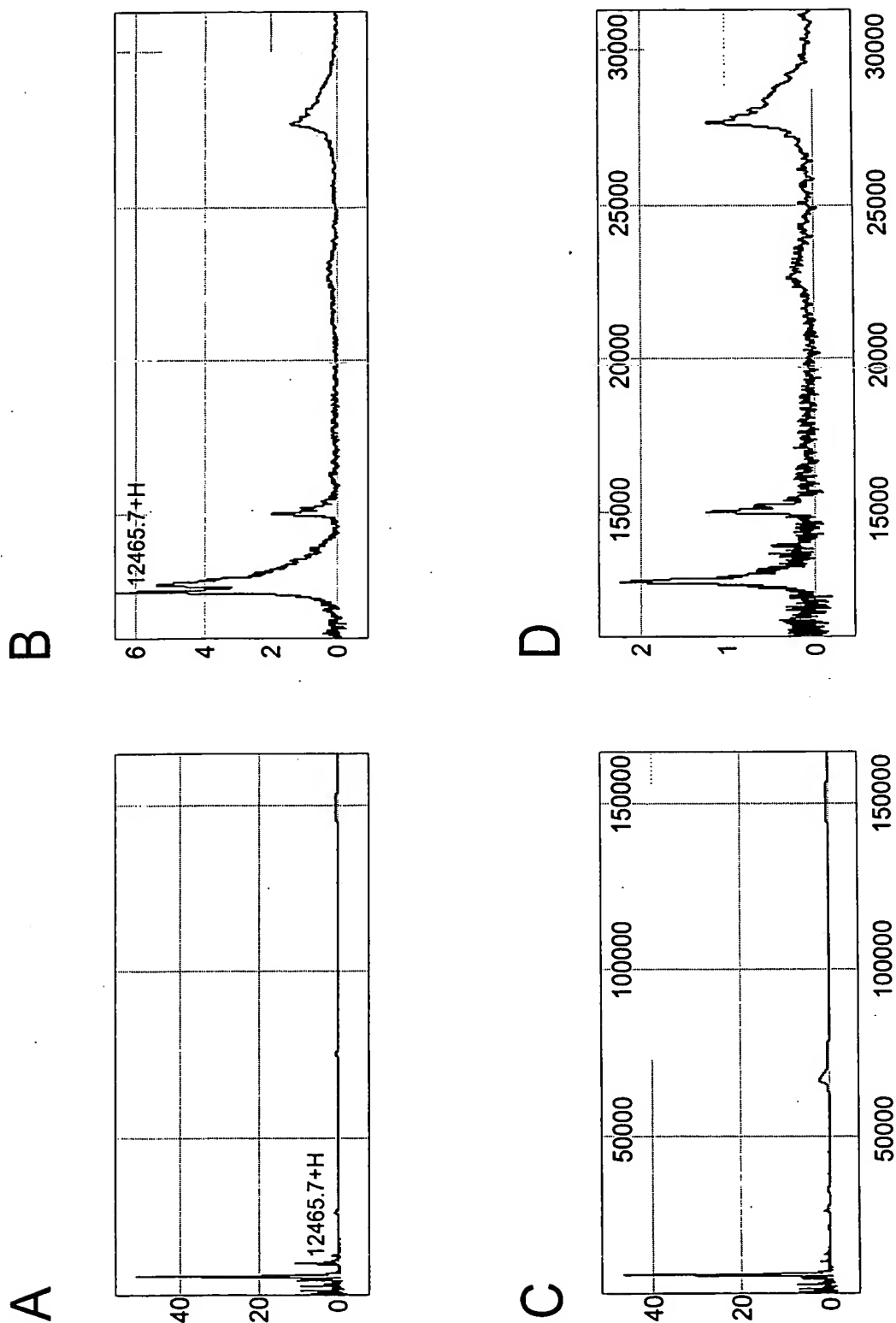


FIG. 22

2016-06-09 09:00:00

Sheet 23 of 27



201E10" 69999001

Single MS

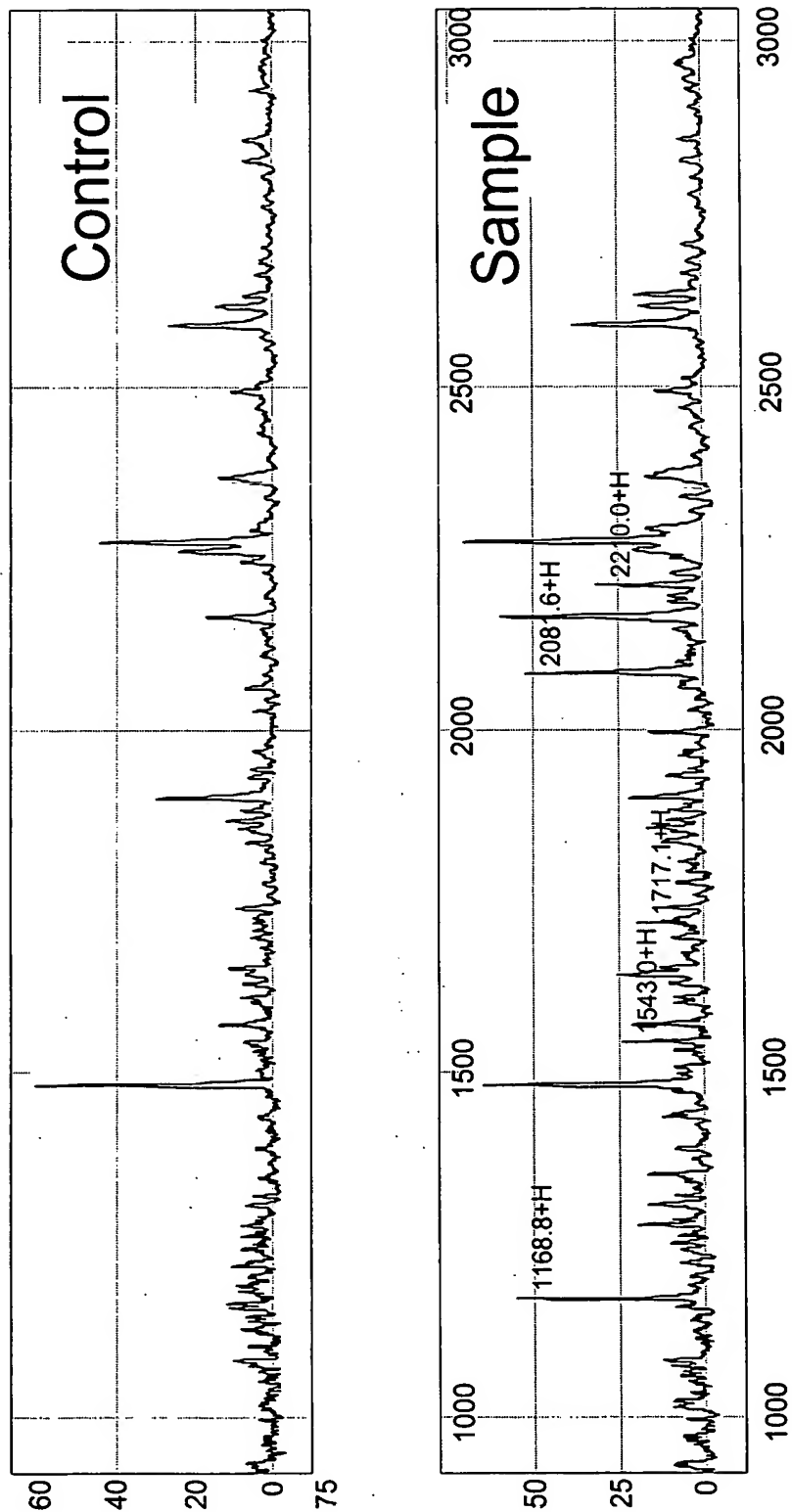
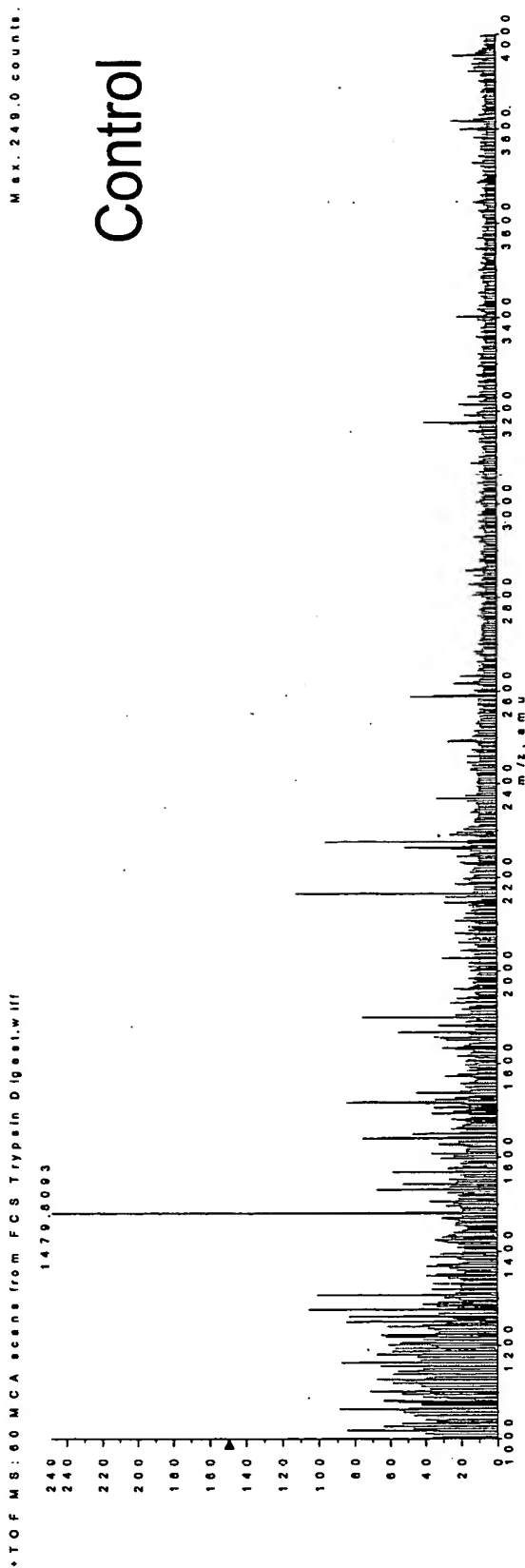


FIG. 24

201ET0-65E99001

QqTOF Tandem MS

A



B

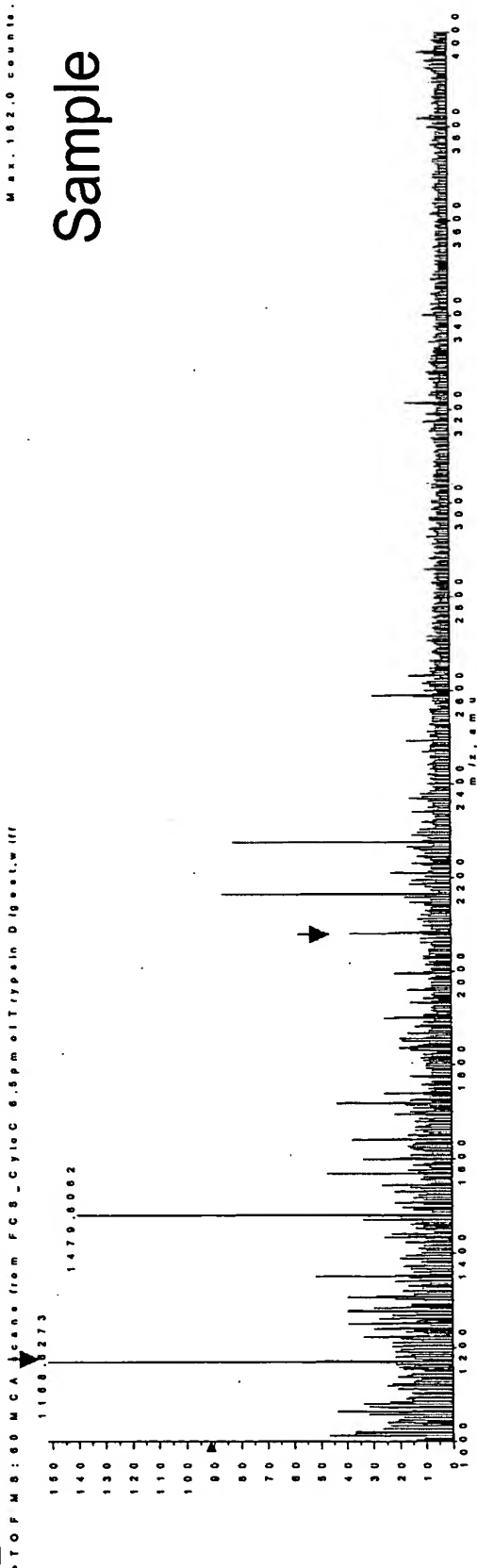


FIG. 25

20131016 090001

1168 MS/MS

+TOF Product (1168.0): 97 MCA scans from FCS_CytoC 6.5pmol Trypsin Digest 1168MSMS.wiff

Max. 148.0 counts.

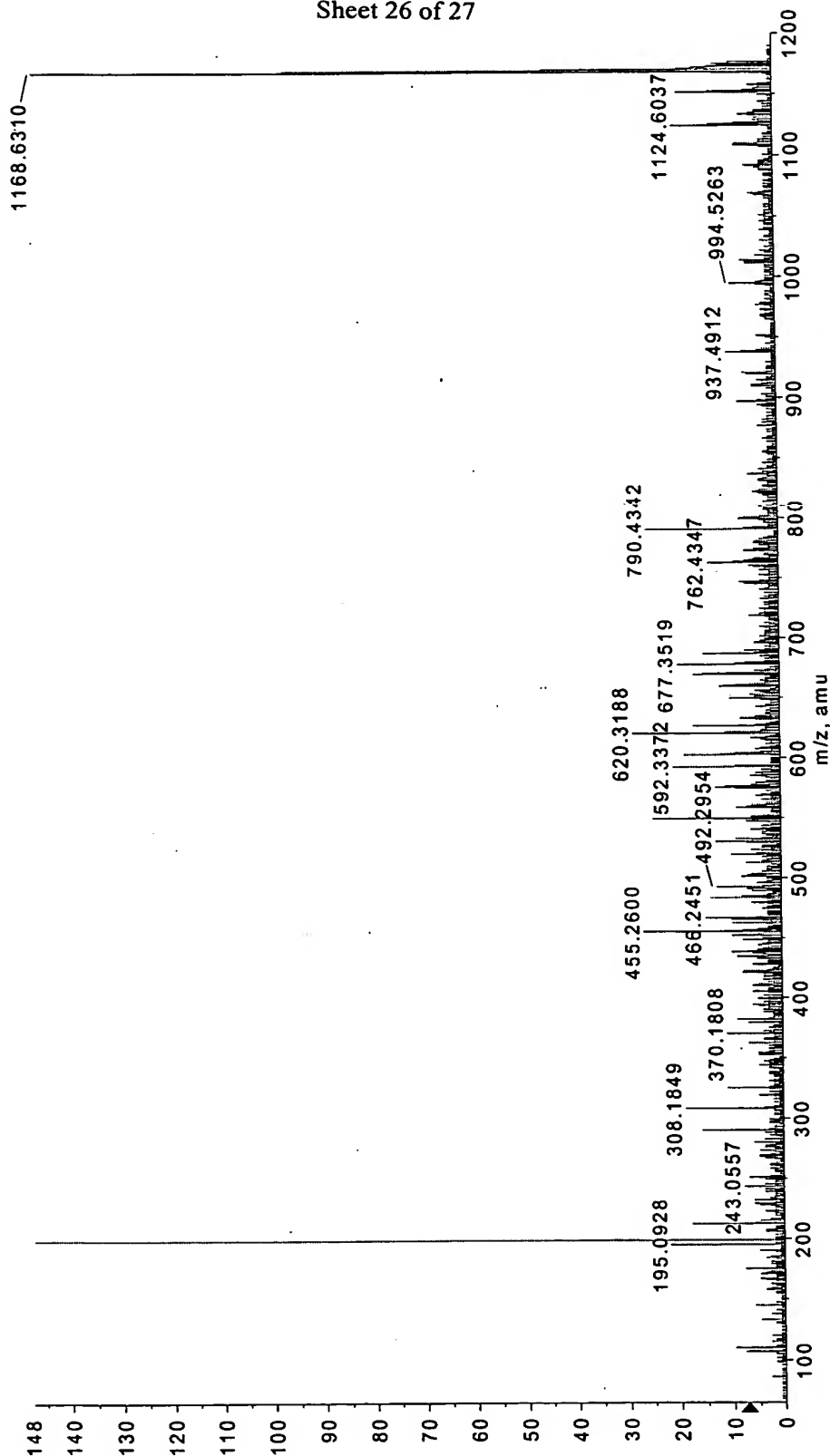


FIG. 26

MS-Tag Search Results

Press stop on your browser if you wish to abort this MS-Tag search prematurely

Sample ID (Comment): Apo A11040/AFVLEDR

Database searched: NCBInr 12.5.2001

Full Molecular Weight range: 810480 entries

Full pI range: 810480 entries

Presearch select 810480 entries

Ion Types Considered: a-NH3 a1b1-NH3 b1-H2O b1-H2O y-NH3 y-H2O x1im

Search: Peptide Masses Digest: Max # Missed: Cysteines Peptide
Mode are Used Cleavages Modified by N-Termus C-Termus
identity monoisotopic Trypsin 3 unmodified Hydrogen (H) Free Acid (OH)

Number of sequences passing through parent mass filter: 18097

MS-Tag search select 33 entries (results displayed for top 25 matches)

Parent mass: 11686310 (+/- 500000 ppm)

14 Fragment ions used in search: 17510, 19509, 24306, 30818, 45526, 54931, 62032, 66935, 67735, 76243, 78043, 93749, 99453, 110860 (+/- 50000 ppm)

Max # Unmatched Ions = 7

Results Summary

Rank	Unmatched Ions	#	Sequence	MH (Da)	MH Calculated Error (ppm)	Protein MW (Da)	Species	NCBInr 12.5.2001 Accession #	Protein Name
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1108089	1963	HOMO SAPIENS	15979398	(B)G015130 cytochrome c
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1118880	1952	UNREADABLE	14782885	>gi14782885refXP_043240.1 QXM_043240 hypothetical protein XP_043240 Homo sapiens]
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1107578	1959	UNREADABLE	4139715	>gi4139715pdb GIW Solution Structure Of Reduced Horse Heart Cytochrome C Nmr. Minimized Average Structure
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1107036	1947	CHICKENS HEART PEPTIDE 1047AA	914118	apocytochrome c
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1118258	1954	HORSES HEART PEPTIDE 1047AA	914117	apocytochrome c
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1111814	1959	UNREADABLE	4139756	>gi4139756pdb WEJ Cham H. Local Fab Fragment Of E8 Antibody Complexed With Horse Cytochrome C At 1.8 A Resolution
1	3/14	(K)	IGPNLHGLFGR(K)	11686227	7.1114743	1961	GUINEA PIG TENTATIVE SEQUENCE	483111	cytochrome c

FIG. 27